

REMARKS

Claims 1-13 are pending. Claims 12 and 13 have been withdrawn from consideration as being directed to a non-elected invention.

Claim Rejections – 35 USC § 103

Claims 1-11 were rejected under 35 U.S.C. 103(a) as being unpatentable over Van den Brink (U.S. Patent No. 4,778,275), hereinafter ('275 patent) in view of Shigeo (JP 6-302495), (hereinafter "Shigeo"). Applicants respectfully traverse this rejection for at least the following reasons.

Claim 1 recites a method of positioning an object at a required position on an object table in a lithographic projection apparatus, comprising: placing an object at a first position on a first object table; measuring a displacement between the first position of the object and a required position of the object; removing the object from the first object table; moving the object and the first object table relatively to each other by substantially the said displacement, in a direction substantially parallel to the plane of the table; and placing the object at substantially the required position on the first object table.

The Office Action contends that the '275 patent discloses an object placed on a first position, measuring a displacement, removing the object, moving the object and the table relative to one another and placing the object at the required position. The Office Action further contends that the mask "object" is at the first position and the system AS1 aligns the mask by positioning the mask at the required position. Applicants respectfully disagree.

The portions of the '275 patent cited in the Office Action (col. 7 lines 24-40 and col. 7 line 64 through col. 8 line 5) disclose a method for aligning a mask and substrate relative to each other where the table is moved in the X and Y directions until a plurality of marks are aligned (e.g., mask mark M2 is aligned which substrate mark P1). The '275 patent uses an alignment system AS1 to determine the relative position of the mask mark M2 and the substrate mark P1 to align the mask and the substrate relative to each other.

As conceded in the Office Action, the '275 patent does not disclose, teach or suggest removing the object from the first object table.

Furthermore, contrary to the Office Action contention, the '275 patent does not measure a displacement between a first position of the object and a required position of the object...and move the object and a first object table (on which the object was placed) relatively to each other by substantially the displacement. The Examiner has admitted as

much in accepting that Applicants' arguments of September 24, 2004 are persuasive. The '275 patent, in the process of aligning the mask relative to the substrate or vice-versa, does not disclose, teach or even suggest moving the mask and the mask table relative to each other or moving the substrate and the substrate table relative to each other, much less moving the mask/the substrate and the mask table/substrate table relative to each other by substantially the measured displacement, in a direction parallel to the plane of the table. Furthermore, the '275 patent does not disclose, teach or suggest placing the object at substantially the required position on the object table. Indeed, in the process of aligning the mask relative to the substrate or vice-versa, the '275 patent does not disclose placing the mask at the required position on the mask table or placing the substrate at the required position on the substrate table.

Consequently, the '275 patent does not disclose, teach or suggest "placing an object at a first position on a first object table; measuring a displacement between the first position of the object and a required position of the object; removing the object from the first object table; moving the object and the first object table relatively to each other by substantially the said displacement, in a direction substantially parallel to the plane of the table; and placing the object at substantially the required position on the first object table," as recited in claim 1.

Furthermore, because the office action states that claim 11 is "similar to" claim 1 and therefore rejected for similar reasons, Applicants respectfully submit that claim 11 is patentable for at least the same reasons articulated for claim 1. Moreover, Applicants submit that such a rejection based on "similarity" of claims does not meet the standards of a proper rejection in which each and every element of the claim must be shown to be present in the cited reference.

The '275 patent does not disclose, teach or suggest "placing the substrate at a first position on the table; measuring a displacement between the first position of the substrate and a required position of the substrate; removing the substrate from the table; moving the substrate and the table relatively to each other by substantially the said displacement, in a direction substantially parallel to the plane of the table; and placing the substrate at substantially the required position on the table," as recited in claim 11.

Shigeo fails to overcome the deficiencies noted above in the '275 patent. Shigeo merely removes the reticle 12 from the stage 11, rotates the stage 11, places the reticle 12 back on the stage 11 and rotates the stage 11 in the reverse direction to return the reticle 12 to its original condition. Shigeo does not disclose, teach or suggest, *inter-alia*, "moving the

object and the first object table relatively to each other by substantially the said displacement, in a direction substantially parallel to the plane of the table; and placing the object at substantially the required position on the first object table,” as recited in claim 1 or “placing the substrate at a first position on the table; measuring a displacement between the first position of the substrate and a required position of the substrate; removing the substrate from the table; moving the substrate and the table relatively to each other by substantially the said displacement, in a direction substantially parallel to the plane of the table; and placing the substrate at substantially the required position on the table,” as recited in claim 11.

Shigeo clearly does not disclose, teach or even suggest placing the reticle 12 on the stage 11 at substantially the required position. Shigeo performs a reverse rotation of the stage 11 while the reticle is on the stage 12 to return the reticle to its original condition.

Furthermore, there is no suggestion or motivation in either the ‘275 patent or Shigeo to combine the teachings of Shigeo with the teachings of the ‘275 patent. Contrary to the Office Action contention, Shigeo and the ‘275 patent solve different problems. While the ‘275 patent is in part concerned about aligning the reticle and the substrate relative to each other, Shigeo is merely concerned about correcting angular positioning of the reticle. One of ordinary skill in the art would not have been motivated to combine the ‘275 patent and Shigeo. Moreover, in evaluating the references, the Examiner may not pick and chose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such a reference fairly suggests to one of ordinary skill in the art. In addition, "a piecemeal reconstruction of prior art patents in the light of appellants' disclosure" shall not be the basis for a holding of obviousness. *See In re Kamm*, 452 F.2d 1052, 1056-57, 172 USPQ 298, 301-02 (CCPA 1972).

Consequently, neither the ‘275 patent nor Shigeo, alone or in combination, disclose, teach or suggest the subject matter recited in claim 1 and 11.

Therefore, Applicants respectfully submit that claims 1 and 11, and claims 2-10 which depend directly or indirectly from claim 1, are patentable. Thus, Applicants respectfully request that the rejection of claims 1-11 under § 103(a) over the combination of the ‘275 patent and Shigeo be withdrawn.

CONCLUSION

In view of the foregoing, the claims are now in form for allowance, and such action is hereby solicited. If any point remains in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

All objections and rejections having been addressed, it is respectfully submitted that the present application is in a condition for allowance and a Notice to that effect is earnestly solicited.

Please charge any fees associated with the submission of this paper to Deposit Account Number 033975. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,

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